

Mechanics of Futures Markets

Chapter 2

Futures Contracts

- Available on a wide range of assets
- Exchange traded
- Specifications need to be defined:
 - What can be delivered,
 - Where it can be delivered, &
 - When it can be delivered
- Settled daily

Margins

- A margin is cash or marketable securities deposited by an investor with his or her broker
- The balance in the margin account is adjusted to reflect daily settlement
- Margins minimize the possibility of a loss through a default on a contract

Example of a Futures Trade

(page 26-28)

- An investor takes a long position in 2 December gold futures contracts on June 5
 - contract size is 100 oz.
 - futures price is US\$600
 - margin requirement is US\$2,000/contract (US\$4,000 in total)
 - maintenance margin is US\$1,500/contract (US\$3,000 in total)

A Possible Outcome

Table 2.1, Page 28

Day	Futures Price (US\$)	Daily Margin		Cumulative Margin	
		Gain (Loss) (US\$)	Gain (Loss) (US\$)	Account Balance (US\$)	Margin Call (US\$)
	600.00			4,000	
5-Jun	597.00	(600)	(600)	3,400	0
⋮	⋮	⋮	⋮	⋮	⋮
13-Jun	593.30	(420)	(1,340)	2,660	$+1,340 = 4,000$
⋮	⋮	⋮	⋮	⋮	$< 3,000$
19-Jun	587.00	(1,140)	(2,600)	2,740	$+1,260 = 4,000$
⋮	⋮	⋮	⋮	⋮	⋮
26-Jun	592.30	260	(1,540)	5,060	0

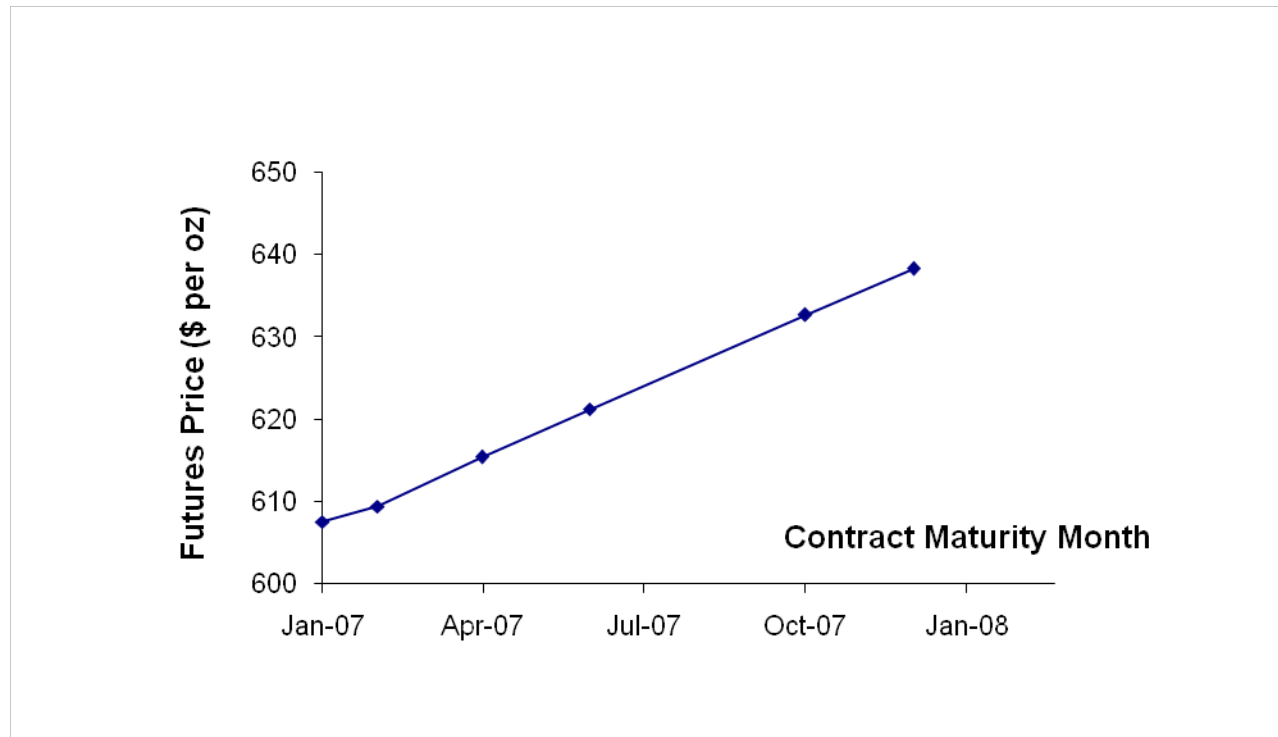
Other Key Points About Futures

- They are settled daily
- Closing out a futures position involves entering into an offsetting trade
- Most contracts are closed out before maturity

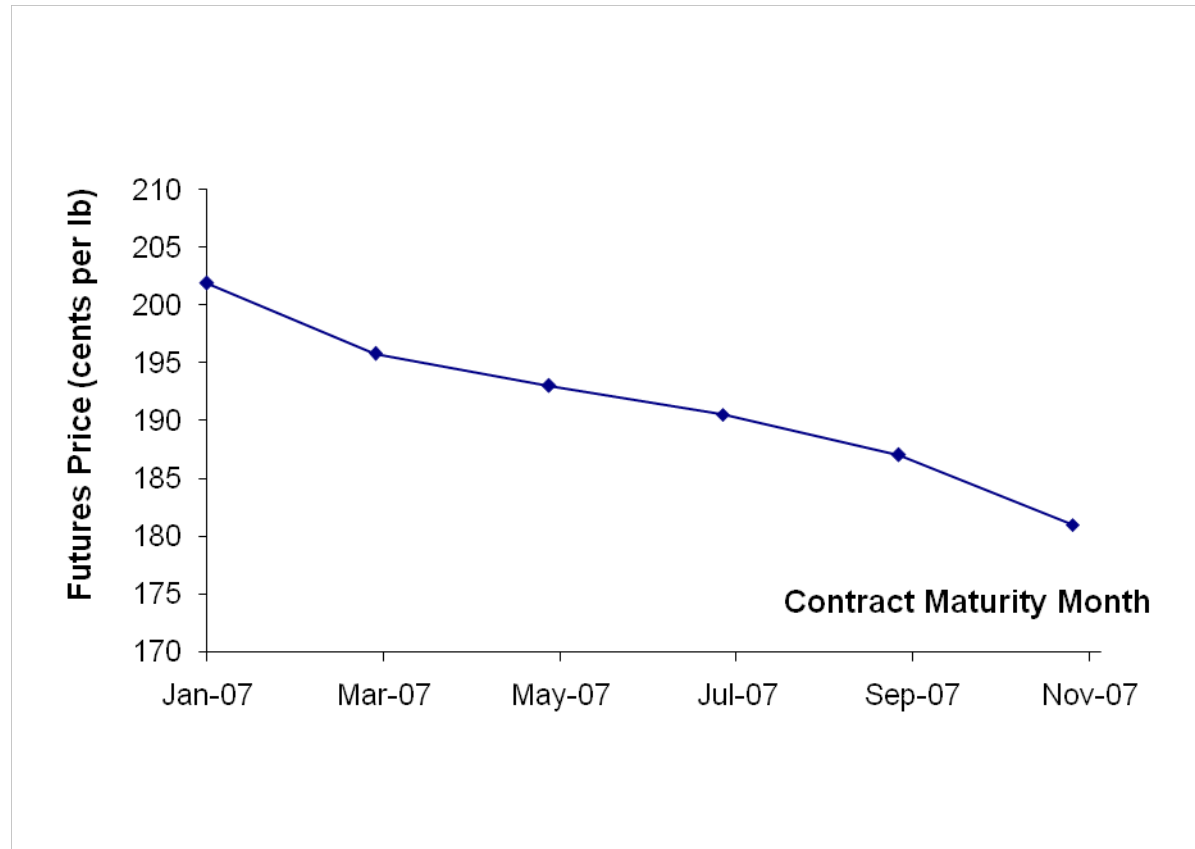
Collateralization in OTC Markets

- It is becoming increasingly common for contracts to be collateralized in OTC markets
- They are then similar to futures contracts in that they are settled regularly (e.g. every day or every week)

Futures Prices for Gold on Jan 8, 2007: Prices Increase with Maturity (Figure 2.2a, page 33)



Futures Prices for Orange Juice on January 8, 2007: Prices Decrease with Maturity (Figure 2.2b, page 33)



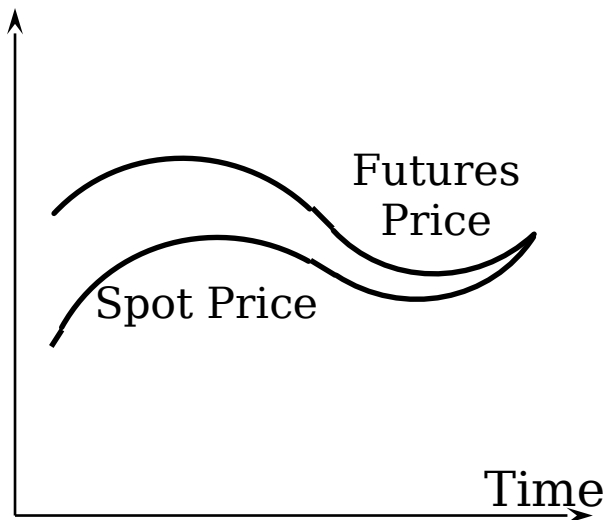
Delivery

- If a futures contract is not closed out before maturity, it is usually settled by delivering the assets underlying the contract. When there are alternatives about what is delivered, where it is delivered, and when it is delivered, the party with the short position chooses.
- A few contracts (for example, those on stock indices and Eurodollars) are settled in cash

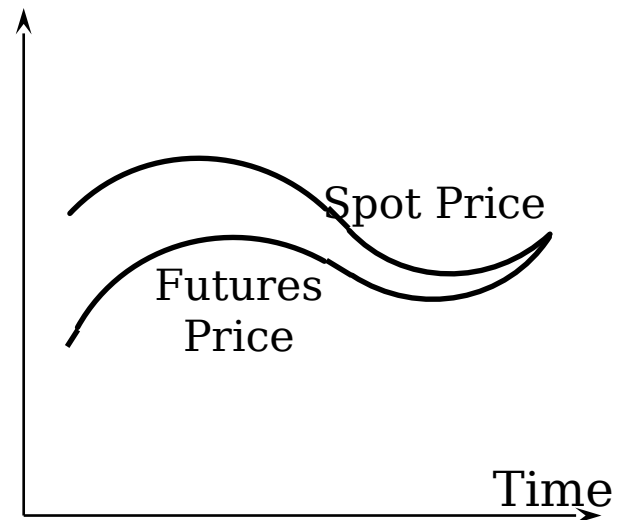
Some Terminology

- Open interest: the total number of contracts outstanding
 - equal to number of long positions or number of short positions
- Settlement price: the price just before the final bell each day
 - used for the daily settlement process
- Volume of trading: the number of trades in 1 day

Convergence of Futures to Spot (Figure 2.1, page 26)



(a)



(b)

Questions

- When a new trade is completed what are the possible effects on the open interest?
- Can the volume of trading in a day be greater than the open interest?

Regulation of Futures

- Regulation is designed to protect the public interest
- Regulators try to prevent questionable trading practices by either individuals on the floor of the exchange or outside groups

Accounting & Tax

- Ideally hedging profits (losses) should be recognized at the same time as the losses (profits) on the item being hedged
- Ideally profits and losses from speculation should be recognized on a mark-to-market basis
- Roughly speaking, this is what the accounting and tax treatment of futures in the U.S. and many other countries attempts to achieve

Forward Contracts vs Futures Contracts

TABLE 2.3 (p.
39)

FORWARDS	FUTURES
Private contract between 2 parties	Exchange traded
Non-standard contract	Standard contract
Usually 1 specified delivery date	Range of delivery dates
Settled at end of contract	Settled daily
Delivery or final cash settlement usually occurs	Contract usually closed out prior to maturity
Some credit risk	Virtually no credit risk

Foreign Exchange Quotes

- Futures exchange rates are quoted as the number of USD per unit of the foreign currency
- Forward exchange rates are quoted in the same way as spot exchange rates. This means that GBP, EUR, AUD, and NZD are quoted as USD per unit of foreign currency. Other currencies (e.g., CAD and JPY) are quoted as units of the foreign currency per USD.